# Star-Calendars and an Almanac from South-West Arabia

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## I. Introduction

The star-calendar of the South Arabian cultivators and mariners has been carefully and thoroughly examined by CARLO VON LANDBERG (7) who dealt with it from the historical and philological aspects, correlating material from Arabic literary sources with his own field-work. Embedded in a lexicon, known to specialists alone, his study of the subject is not generally available at a time such as the present when so much agricultural development has begun to take place in Southern Arabia. Moreover LANDBERG's calendar is based mainly upon information collected by him in the Wādī ʿAmaḳīn, whereas there seem to be numerous methods of computation of the agricultural year which do not entirely coincide with the calendar known to him.

The portion of this article concerned with the star-calendar will contain certain material nearly identical with that of LANDBERG, but set forth in tabular form for use in the field. For further reference and more profound research, recourse must be made to his Glossaire Daṯînois, and to the bibliography (p. 459). This article is, in some sense, a supplement to LANDBERG



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embodying new field-work and drawing on new written sources of information. It is not however suggested that it is in any way a synthesis of the works cited in the bibliography though nearly all of them have been consulted. The bibliography itself enables one to form some conception of the area over which the star-calendar is used, apart from Southern Arabia which alone concerns us here, and indeed it is probably used over wider territories still.

EDWARD LANE's Lexicon contains much of the earlier Arab stellar lore, but the latter is most readily available to us in the works of AL-BĪRŪNĪ (18), (21). ḤAMDĀNĪ (ob. 945 A. D.) shows by inference that the star-calendar was used by cultivators in the 10th century [1], and there has in fact been a continuous tradition of astronomical writing up to the present time in Southern Arabia [2]. As a science, astronomy had an importance for men of religion too, that is to say a practical importance, and the Syrian AL-SHAIZARĪ for instance, lays down a rule that the muezzin must know the "Mansions of the Moon and form of the stars of each Mansion" [3], so as to perform the call to the dawn prayer at the appropriate time.

No attempt is made to identify the stars, but they have been very exactly described by AL-BĪRŪNĪ, and LANDBERG has made identifications which may assist those interested in that aspect of the study.

## II. Correlations of the Star-Calendar with the Solar Year

### 1. Generalities

Table I is a correlation between the European solar calendar and the star-calendar of the Arabs of Ḥaḍramawt, compiled by a certain AL-SHIBĀMĪ [4] who, as his name implies, must have been a citizen of Shibām, the commercial centre of the country. A list of the 28 stars of the year is given at the foot, each star-period running for 13 days, except *al-Haḳ'ah* which lasts 14 days. The first star of each season, of which there are four in Ḥaḍramawt, is known as the Father (*al-Abū*) [5]. The table was copied as printed here, but all other sources make the year commence with the period called *Ṣaif* by AL-SHIBĀMĪ, i. e. the beginning of April.

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[1] *Ṣifat Djazīrat al-'Arab*, edit. D. H. MÜLLER (Leiden 1884), p. 154.

[2] Cf. Materials for South Arabian History II (Bull. School Oriental and African Studies). (London 1950), 13, 2, p. 593 for Ḥaḍrami writers. The comparatively recent author AL-SHAWKĀNĪ says in his *Al-Badr al-Ṭāli'* (Cairo, 1348 H.), II, 222 that he had written a book *Djawāb al-Sā'il 'an Taṣṣīl al-Ḳamar Manāzil* (Answer to the Inquirer on the Division of the Moon into Mansions), a work doubtless available in the Yemen.

[3] *Nihāyat al-Rutbah fī Ṭalab al-Ḥisbah* (Cairo 1365 H. 1946 A. D.), p. 111. He refers to IBN ḲUTAIBAH, "*K. al-Anwā'*" as the standard work on the Mansions (cf. BROCKELMANN, GAL I, 122). A Ms. of this work is available in Oxford (Bodl. I, 1033) which will probably contain ancient popular rhymes and lore of the type to which reference is made infra. AL-SHAIZARĪ died in 1193 A. D.

[4] BĀ ṢABRAIN AL-SHIBĀMĪ, for his biography, see Materials for South Arabian History, op. cit., p. 593. This table, entitled *Ḥisāb al-Shibāmī*, is said to have been printed (in Arabic).

[5] *Abū* is used so with the definite article also when describing the head of a trade-guild in Ḥaḍramawt.

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**Table I**

Table of the Arabic Stars according to the European Months, known as *Ḥisāb al-Shibāmī* [5a].

| *Al-Rabīʿ* | | | | | | *Al-Ṣaif* | | | | | | *Al-Kharīf* | | | | | | *Al-Shitā* | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | | February | | March | | April | | May | | June | | July | | August | | September | | October | | November | | December | |
| 1 | [1]1 | 1 | 6 | 1 | 8 | 2 | [8]1 | 1 | 4 | 1 | 9 | 2 | [15]1 | 1 | 5 | 1 | 10 | 1 | [22]1 | 1 | 6 | 1 | 10 |
| 2 | 2 | 2 | 7 | 2 | 9 | 3 | 2 | 2 | 5 | 2 | 10 | 3 | 2 | 2 | 6 | 2 | 11 | 2 | 2 | 2 | 7 | 2 | 11 |
| 3 | 3 | 3 | 8 | 3 | 10 | 4 | 3 | 3 | 6 | 3 | 11 | 4 | 3 | 3 | 7 | 3 | 12 | 3 | 3 | 3 | 8 | 3 | 12 |
| 4 | 4 | 4 | 9 | 4 | 11 | 5 | 4 | 4 | 7 | 4 | 12 | 5 | 4 | 4 | 8 | 4 | 13 | 4 | 4 | 4 | 9 | 4 | 13 |
| 5 | 5 | 5 | 10 | 5 | 12 | 6 | 5 | 5 | 8 | 5 | 13 | 6 | 5 | 5 | 9 | 5 | [20]1 | 5 | 5 | 5 | 10 | 5 | [27]1 |
| 6 | 6 | 6 | 11 | 6 | 13 | 7 | 6 | 6 | 9 | 6 | [13]1 | 7 | 6 | 6 | 10 | 6 | 2 | 6 | 6 | 6 | 11 | 6 | 2 |
| 7 | 7 | 7 | 12 | 7 | [6]1 | 8 | 7 | 7 | 10 | 7 | 2 | 8 | 7 | 7 | 11 | 7 | 3 | 7 | 7 | 7 | 12 | 7 | 3 |
| 8 | 8 | 8 | 13 | 8 | 2 | 9 | 8 | 8 | 11 | 8 | 3 | 9 | 8 | 8 | 12 | 8 | 4 | 8 | 8 | 8 | 13 | 8 | 4 |
| 9 | 9 | 9 | [4]1 | 9 | 3 | 10 | 9 | 9 | 12 | 9 | 4 | 10 | 9 | 9 | 13 | 9 | 5 | 9 | 9 | 9 | [25]1 | 9 | 5 |
| 10 | 10 | 10 | 2 | 10 | 4 | 11 | 10 | 10 | 13 | 10 | 5 | 11 | 10 | 10 | [18]1 | 10 | 6 | 10 | 10 | 10 | 2 | 10 | 6 |
| 11 | 11 | 11 | 3 | 11 | 5 | 12 | 11 | 11 | [11]1 | 11 | 6 | 12 | 11 | 11 | 2 | 11 | 7 | 11 | 11 | 11 | 3 | 11 | 7 |
| 12 | 12 | 12 | 4 | 12 | 6 | 13 | 12 | 12 | 2 | 12 | 7 | 13 | 12 | 12 | 3 | 12 | 8 | 12 | 12 | 12 | 4 | 12 | 8 |
| 13 | 13 | 13 | 5 | 13 | 7 | 14 | 13 | 13 | 3 | 13 | 8 | 14 | 13 | 13 | 4 | 13 | 9 | 13 | 13 | 13 | 5 | 13 | 9 |
| 14 | [2]1 | 14 | 6 | 14 | 8 | 15 | [9]1 | 14 | 4 | 14 | 9 | 15 | [16]1 | 14 | 5 | 14 | 10 | 14 | [23]1 | 14 | 6 | 14 | 10 |
| 15 | 2 | 15 | 7 | 15 | 9 | 16 | 2 | 15 | 5 | 15 | 10 | 16 | 2 | 15 | 6 | 15 | 11 | 15 | 2 | 15 | 7 | 15 | 11 |
| 16 | 3 | 16 | 8 | 16 | 10 | 17 | 3 | 16 | 6 | 16 | 11 | 17 | 3 | 16 | 7 | 16 | 12 | 16 | 3 | 16 | 8 | 16 | 12 |
| 17 | 4 | 17 | 9 | 17 | 11 | 18 | 4 | 17 | 7 | 17 | 12 | 18 | 4 | 17 | 8 | 17 | 13 | 17 | 4 | 17 | 9 | 17 | 13 |
| 18 | 5 | 18 | 10 | 18 | 12 | 19 | 5 | 18 | 8 | 18 | 13 | 19 | 5 | 18 | 9 | 18 | [21]1 | 18 | 5 | 18 | 10 | 18 | [28]1 |
| 19 | 6 | 19 | 11 | 19 | 13 | 20 | 6 | 19 | 9 | 19 | [14]1 | 20 | 6 | 19 | 10 | 19 | 2 | 19 | 6 | 19 | 11 | 19 | 2 |
| 20 | 7 | 20 | 12 | 20 | [7]1 | 21 | 7 | 20 | 10 | 20 | 2 | 21 | 7 | 20 | 11 | 20 | 3 | 20 | 7 | 20 | 12 | 20 | 3 |
| 21 | 8 | 21 | 13 | 21 | 2 | 22 | 8 | 21 | 11 | 21 | 3 | 22 | 8 | 21 | 12 | 21 | 4 | 21 | 8 | 21 | 13 | 21 | 4 |
| 22 | 9 | 22 | [5]1 | 22 | 3 | 23 | 9 | 22 | 12 | 22 | 4 | 23 | 9 | 22 | 13 | 22 | 5 | 22 | 9 | 22 | [26]1 | 22 | 5 |
| 23 | 10 | 23 | 2 | 23 | 4 | 24 | 10 | 23 | 13 | 23 | 5 | 24 | 10 | 23 | [19]1 | 23 | 6 | 23 | 10 | 23 | 2 | 23 | 6 |
| 24 | 11 | 24 | 3 | 24 | 5 | 25 | 11 | 24 | [12]1 | 24 | 6 | 25 | 11 | 24 | 2 | 24 | 7 | 24 | 11 | 24 | 3 | 24 | 7 |
| 25 | 12 | 25 | 4 | 25 | 6 | 26 | 12 | 25 | 2 | 25 | 7 | 26 | 12 | 25 | 3 | 25 | 8 | 25 | 12 | 25 | 4 | 25 | 8 |
| 26 | 13 | 26 | 5 | 26 | 7 | 27 | 13 | 26 | 3 | 26 | 8 | 27 | 13 | 26 | 4 | 26 | 9 | 26 | 13 | 26 | 5 | 26 | 9 |
| 27 | [3]1 | 27 | 6 | 27 | 8 | 28 | [10]1 | 27 | 4 | 27 | 9 | 28 | [17]1 | 27 | 5 | 27 | 10 | 27 | [24]1 | 27 | 6 | 27 | 10 |
| 28 | 2 | 28 | 7 | 28 | 9 | 29 | 2 | 28 | 5 | 28 | 10 | 29 | 2 | 28 | 6 | 28 | 11 | 28 | 2 | 28 | 7 | 28 | 11 |
| 29 | 3 | | | 29 | 10 | 30 | 3 | 29 | 6 | 29 | 11 | 30 | 3 | 29 | 7 | 29 | 12 | 29 | 3 | 29 | 8 | 29 | 12 |
| 30 | 4 | | | 30 | 11 | | | 30 | 7 | 30 | 12 | 31 | 4 | 30 | 8 | 30 | 13 | 30 | 4 | 30 | 9 | 30 | 13 |
| 31 | 5 | | | 31 | 12 | | | 31 | 8 | 1 | 13 | | | 31 | 9 | | | 31 | 5 | | | 31 | 14 |
| | | | | 1 | 13 | | | | | | | | | | | | | | | | | | |

[1] *al-Han'ah*
[2] *al-Dhirā'*
[3] *al-Nathrah*
[4] *al-Ṭarf*
[5] *al-Djabhah*
[6] *al-Zabrah*
[7] *al-Ṣarfah*
[8] *al-'Awwā*
[9] *al-Simāk*
[10] *al-Ghufr*
[11] *al-Zubān*
[12] *al-Iklīl*
[13] *al-Ḳalb*
[14] *al-Shawl*
[15] *al-Na'ā'im*
[16] *al-Baldah*
[17] *al-Mirzam*
[18] *al-Suhail*
[19] *Bā 'Uraiḳ*
[20] *al-Khibā*
[21] *al-Fargh*
[22] *al-Dalū*
[23] *al-Ḥūt*
[24] *al-Naṭḥ*
[25] *Buṭain*
[26] *al-Thuraiyā*
[27] *al-Barakān*
[28] *al-Haḳ'ah*

[5a] The transliteration of the Arabic words in this article has been made according to the system of the Encyclopaedia of Islam. N. B. The small number to the left of the first day of each star refers to the name in the lower portion of the table.

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**Table II**

Amongst the Wāḥidī tribes to the west of Ḥaḍramawt the following Star-Calendar is in use :

| *Rabīʿ* | *Ṣaif* | *Kharīf* | *Shitā* |
|---|---|---|---|
| 1) *Djabhah* | 8) *Kalīl* | 15) *Suhail, al-Khirih* | 22) *Thuraiyā* |
| 2) *Zabrah* | 9) *Ḳalb* | 16) *Saʿd* | 23) *Barākān* |
| 3) *Ṣarfah* | 10) *Shawlah* | 17) *Nāḥiz* | 24) *Hiḳāʿ* |
| 4) *ʿUwwā* | 11) *Naʿāʾim* | 18) *ʿAraḳ* | 25) *Hināʿ* |
| 5) *Simāk* | 12) *Baldah* | 19) *Khāmis* | 26) *Dhirāʿ* |
| 6) *Ghawfar* | 13) *Ḳuwaidim* | 20) *Sādis* | 27) *Nitharah* |
| 7) *Zibān* | 14) *Mirzam* | 21) *Sābiʿ* | 28) *Ṭaraf* |

These names are, with slight dialectical variants, the same as the list reported by LANDBERG from the Wādī ʿAmaḳīn. For *Nāḥiz* LANDBERG has *Ḳatrah*, a star also appearing in the Yāfiʿī calendar.

According to my chief informant in Ḥaḍramawt, ʿABDULLĀH RAḤAIYAM, the following seasons were distinguished in Tarīm :

| Season | No. of days | Beginning of Season |
|---|---|---|
| *Rabīʿ* | 89 | 6th Jan., or 6th of *Hanʿah* |
| *Ṣaif* | 94 | 22nd March, or 3rd of *Ṣarfah* |
| *Kharīf* | 93 | 7th July, or 6th of *Naʿāʾim* |
| *Shitā* | 98 | 25th Sept. or 8th of *Farigh* |

These dates differ slightly from those of the Almanac which is translated below (p. 445). RAḤAIYAM's calendar also differed in that he gave the star *Hanʿah* the odd fourteen days. He seemed to regard the extra day as intercalary and called it *kabīsah* (pl. *kabāʾis*), while a second intercalary day was called *kabīsat al-kabīsah*. He said that these intercalary days could be added to *Haḳʿah* and *Hanʿah*. In LANE's Lexicon the star *Djabhah* is given the fourteen day period.

In Ḥaḍramawt one expresses the date as, "The lst day in *Baldah* (equivalent to) the 26th of *Shaʿbān*, year 1366 (*awwal yawm fī Baldah, sitt wa-ʿishrīn Shaʿbān, sanat 1366*)".

In comparing the various star-calendars of antiquity and the present day, I have discovered that the 28 stars listed by the authorities correspond, more or less, in nomenclature, though there are variant forms and alternatives for some star-names. There is however an enormous variation in the particular Mansion of the Moon which is said to appear at a given period ; while this may have a simple explanation to those acquainted with astronomy, it is at first somewhat astonishing to the uninstructed layman, especially as the variations occur in territories at no great distance from each other. The following comparisons are made in the case of *Djabhah*, for South Arabia ; let it be said that further afield, in the Sudan, this star-name appears in the latter half of August [6].

[6] See (15). Sudanese stellar lore evidently derives nearly from that of Arabia.

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Table III

| Month | Day | Sun-Stations | Agricultural Stars | Evening Ascension | Morning Ascension |
|---|---|---|---|---|---|
| January | 10 | *Sa'd al-Dhābiḥ* | *Rābi' Awwal* (Evening) | *al-Nathrah* | *al-Na'ā'im* |
| | 23 | *Sa'd Bula'* | *Rābi' Ākhir* (Evening) | *al-Ṭarf* | *al-Baldah* |
| February | 5 | *Sa'd al-Su'ūd* | *Khāmis al-Ṣawāb* | *al-Djabhah* | *al-Dhābiḥ* |
| | 18 | *Sa'd al-Akhbiyah* | *Sādis al-Ṣawāb* | *al-Zabrah* | *Sa'd Bula'* |
| March | 3 | *al-Fargh al-Muḳaddam* | *Sābi' al-Ṣawāb* | *al-Ṣarfah* | *Sa'd al-Su'ūd* |
| | 16 | *al-Fargh al-Mu'akhkhar* | *Ẓāfir Awwal* | *al-'Awwā* | *Sa'd al-Akhbiyah* |
| | 29 | *Baṭn al-Ḥūt* | *Ẓāfir Thānī* | *al-Simāk* | *al-Muḳaddam* |
| April | 11 | *al-Sharaṭain* | *Simāk* (*al-Far'*) | *al-Ghufr* | *al-Mu'akhkhar* |
| | 24 | *al-Buṭain* | *Ghurūb Kāmah* | *al-Zubānā* | *al-Rishā* (*Baṭn al-Ḥūt*) |
| May | 7 | *al-Thuraiyā* | *Ghurūb al-Thawr* | *Iklīl* | *al-Sharaṭain* |
| | 20 | *al-Dabarān* | *Ṭulū' Kāmah* | *al-Ḳalb* | *al-Buṭain* |
| June | 2 | *al-Haḳ'ah* | *Ṭulū' al-Thawr* | *al-Shawlah* | *al-Thuraiyā* |
| | 15 | *al-Han'ah* | *Ṭulū' al-Ẓulm al-Awwal* | *al-Na'ā'im* | *al-Dabarān* |
| | 28 | *al-Dhirā'* | *Ṭulū' al-Ẓulm al-Thānī* | *al-Baldah* | *al-Haḳ'ah* |
| July | 12 | *al-Nathrah* | *'Alib* | *Sa'd al-Dhābiḥ* | *al-Han'ah* |
| | 25 | *al-Ṭarf* | *Suhail* | *Sa'd Bula'* | *al-Dhirā'* |
| August | 7 | *al-Djabhah* | *Rawābi' Awwalah* | *Sa'd al-Su'ūd* | *al-Nathrah* |
| | 20 | *al-Zabrah* | *Rawābi' Ākhirah* | *Sa'd al-Akhbiyah* | *al-Ṭarf* |
| September | 2 | *al-Ṣarfah* | *Khāmis 'Alān* * | *al-Fargh al-Muḳaddam* | *al-Djabhah* |
| | 15 | *al-'Awwā* | *Sādis 'Alān* | *al-Fargh al-Mu'akhkhar* | *al-Zabrah* |
| | 28 | *al-Simāk* | *Sābi' 'Alān* | *Baṭn al-Ḥūt* | *al-Ṣarfah* |
| October | 11 | *al-Ghufr* | *Awwal Fāri'* | *al-Sharaṭain* | *al-'Awwā* |
| | 24 | *al-Zubānā* | *Rabī' Kāmah* (Evening) | *al-Buṭain* | *al-Simāk* |
| November | 6 | *al-Iklīl* | *al-Thawr* (Evening) | *al-Thuraiyā* | *al-Ghufr* |
| | 19 | *al-Ḳalb* | *al-Nadjmain* (Evening) | *al-Dabarān* | *al-Zubānā* |
| December | 5 | *al-Shawlah* | *Ẓulm Awwal* (Evening) | *al-Haḳ'ah* | *al-Iklīl* |
| | 15 | *al-Na'ā'im* | *Ẓulm Thānī* (Evening) | *al-Han'ah* | *al-Ḳalb* |
| | 28 | *al-Baldah* | *Suhail* (Evening) | *al-Dhirā'* | *al-Shawlah* |

* Vocalisation doubtful.

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| | | |
|---|---|---|
| AL-SHIBĀMĪ | (Ḥaḍramawt) | 22nd February. |
| GLASER | (Yemen) | 5th February. |
| Almanac | (Ta'izz) | 22nd January. |
| LANDBERG | (W. 'Amaḳīn) | 21st January. |
| Wāḥidīs | (Aṣba'ūn) | about beginning of January. |

The 21st and 22nd of January are really the same date, because an Arab day of 24 hours (*waḍaḥ* in Mukallā) commences at 6 p. m. on what we should regard as the previous evening, so that 6 a. m. on the 22nd of January is according to the Arabs, 12 o'clock and 12 noon is their 6 o'clock. AL-BĪRŪNĪ's list of Mansions would make *Djabhah* appear about the beginning of January, like some of the South Arabian calendars.

The most abnormal star-calendar seems to be that used amongst the Yāfi'īs, and I was given a list of stars and seasons, but as unfortunately I cannot trust the accuracy of my informant it is not printed here. Star-calendars are said to vary from district to district in Yāfi'ī territory which is very mountainous.

Table III is extracted from GLASER (5), but corrected, for his article is full of errors and misspellings of a misleading nature. The Agricultural Stars (GLASER's *Ma'ālim al-Zirā'ah*, the Almanac's *Nudjūm al-Zirā'ah*) also appear in the Almanac, but GLASER's datings fall two days behind those of the Almanac, the corresponding dates in the Christian era have been taken from the Almanac. For instance GLASER's commencing date, the 9th of October, is here the 11th of October. Variants in nomenclature exist but are not given, as they are unimportant. The Almanac inserts against the 19th of October, the "Rise of *al-Thuraiyā* in the Evening", against April 25th it has the "Setting (*Ghurūb*) of *al-Thuraiyā* for 50 days", and against June 14th, "Appearance of *al-Thuraiyā*".

### 2. Zodiacal Signs

In Wāḥidī territory I was given a list of the three Zodiacal signs which occur in each of the four seasons, called *burūdj*, as in Classical Arabic. These do not correspond to the signs as given in the Almanac [7].

| | | | |
|---|---|---|---|
| *Rabī'* | *Ṣaif* | *Kharīf* | *Shitā* |
| *Saraṭān* | *Ḥamal* | *Sunbulah* | *Ḳawzah* |
| *'Aḳrab* | *Asad* | *Djadī* | *Mīzān* |
| *Ḥūt* | *Ḳaws* | *Thawr* | *Dalū* |

### 3. Rain-Stars

Each season, I was told in Daw'an, has a period or periods when rain usually falls, known as *ḥamīm* or *ḥamīmah* [8], with the exception of *Shitā*;

[7] I cannot unfortunately exclude the possibility of simple error here, though my informants were generally reliable.

[8] LANE, Lexicon, gives *ḥamīm* as a period in the star *al-Dabarān* (*Aldebaran*) when there is little or no rain; it also means intense heat, and then the rains following the heat.

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though the best star in which one might hope for rain is *al-Naṭḥ*. When this information was given me I was quite unaware of a passage in ḤAMDĀNĪ [9] listing the stars under which rain falls, and corresponding in general to the following :

*Rabīʿ* The *ḥamīmah* comes at *Ṣarfah, Zabrah, Djabhah.*
*Ṣaif* The *ḥamīmah* comes at *Shawl* and *Ḳalb, Simāk* and *ʿAwwā.*
*Kharīf* The *ḥamīmah* falls in *Suhail, Mirzam, Naʿāʾim* [10].

The exact dating of these stars can be discovered by reference to Table I.

ṬABARĪ (edit. DE GOEJE, etc.) III., IV. 2424 states that the Prophet forbade asking rain of the stars (*al-istisḳāʾ bi-ʾl-Kawākib*) which was a practice of the Pre-Islamic Arabs (cf. *Kanz al-ʿUmmāl* of ʿALĪ B. ʿABD AL-MALIK AL-MUTTAḲĪ [Ḥaidarābād, 1312-4 H.], VIII, 177).

### 4. Cold Spells

In Wāḥidī territory I was told that the three coldest days in the year (we had such a cold spell about mid-December) were known as *al-ḍarbah* (the blow), but in Dawʿan, *al-ḍarbah* was said to be a cold period which might last from three to thirteen days, occuring in *al-Barakān, al-Dhirāʿ*, or *al-Nathrah*. It was said to come usually about three times a year, but it might occur in *al-Haḳʿah* or *al-Hanʿah*. The period known as *al-ʿAdjūz* is marked in the Almanac (infra).

### 5. Heat Spells

According to RAḤAIYAM of Tarīm, there is a week in summer (*Ṣaif*) called *al-Muthammanāt*, the last 4 days of *Shawl* and first 4 of *Naʿāʾim* (28th June to 5th July) which is intensely hot. Another period *al-Arbaʿīnīyah*, of 40 hot days is distinguished, but he did not give me the dates. This latter term is also used in Syria, Persia, etc. [11]. Meteorological information exists for the eastern portion of the Wādī Ḥaḍramawt, so this could be checked with mean temperature records.

### 6. Popular Saws on the Mansions of the Moon

LANE (Lexicon) says that the ancient Arabs had 28 proverbial sayings relating to the risings of the 28 Mansions of the Moon, such as, "When *al-Sharaṭān* rises, the season becomes temperate". A number of such sayings are also quoted by AL-BĪRŪNĪ [12]. In contemporary Ḥaḍramawt similar pro-

[9] *Ṣifat Djazīrat al-ʿArab*, op. cit., p. 154.

[10] For Arabic jingles on the rains at *Suhail*, see my Prose and Poetry from Ḥaḍramawt (London 1951), p. 164, No. 51.

[11] Cf. Western Arabia and the Red Sea (14), p. 608.

[12] Chronology of Ancient Nations, transl. C. E. SACHAU (London 1879), p. 336. Cf. *Kanz al-ʿUmmāl*, op. cit., IV, p. 178 ; MARZŪḲĪ K., *al-Azminah wa-ʾl-Amkinah* (Ḥaidarābād 1918), II, p. 161.

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verbial sayings are attached to all the stars of the agricultural year, unquestionably very ancient. At *al-Ḳalb* for instance, one says, "The palm-tree becomes red with ripe dates (*al-Ḳalb, tiḳlab al-nakhlah fīh bi-ruṭab*)". Again, one says at *al-Djabhah*, "Man's brow pours with sweat then (*al-Djabhah, yaṣubb bi-'l-'araḳ fīhā min djabhat al-insān*)". Another type of saying is the *radjaz* or working-song, a couplet, such as that reported by SNOUCK HURGRONJE [13]:

If the *'Ulyā*-wind [14] blows on the 7th of *al-Shawl* [15],
The pigeon no longer comes to the field-bank.

There are numerous others. Another important date is what one might call the Autumn term, at which palm-plantations and the like are pledged, falling about the 7th of *al-Thuraiyā* in Ḥaḍramawt [16]. In Wāḥidī territory at *al-Baldah* there is a feast, not an *'īd* in the Islamic sense, but probably a kind of harvest festival when people meet together and shake hands. It is then that grain is brought by the peasant to the tribesman, this present being known as *'ādah* (custom), probably a sort of tax.

Of the many superstitious beliefs attaching to the stars I should like in particular to mention that concerning the *Bint al-Nathrah*, Daughter of *al-Nathrah*, brought to my attention recently by MUḤAMMAD LUQMAN. The Yemenites believe that a girl born at this Mansion (*manzalah*) lacks a hymen. They therefore register that she was born under this star with the *Ḳāḍī*, lest, says my Aden informant, there later fall suspicion of something else. The practice continues at Aden to this day, and the *Ḳāḍī* even makes his own private investigations to ascertain that the girl was actually born under this star, before he will issue a certificate as to the date of birth. The certificate can then be produced to the parties with whom the marriage is being contracted so that all is in order. Medical superstitions are too common to mention in detail, and appear throughout the almanac. In Ḥaḍramawt a good star for blood-letting is *Ṣarfah* (commencing 20th March).

### 7. The Months of the Syrian Christian Year

This form of solar calendar is employed in the Yemen, Lahej, and among the Ṣubaiḥī tribes of the Western Aden Protectorate which are subject to Lahej. I have not heard that it is used in any other province of South-West Arabia. The Christian months as given by the Almanac of MUḤAMMAD ḤAIDARAH differ however, in certain month-names from the Ṣubaiḥi calendar. The two calendars are as follows:

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[13] *Sa'd èl-Suwênî* (19), p. 411. See also Prose and Poetry from Ḥaḍramawt, op. cit., Pref. p. 39.

[14] According to SNOUCK, the North Wind (see footnote no. 89, infra).

[15] SNOUCK has badly transcribed the Arabic which he avers has no metre, but this is not so. If transcribed as it would be pronounced, the metre is apparent,
*Lā hab-ba-til-/ 'Ul-yā bi-sā-/bi' bish-Shawl/*
*Mā 'ā-d yib-/ raḥ fil-Ḥa-wī-/lī-'al-'awl/.*

[16] For fuller details, see Materials for South Arabian History, op. cit., p. 592.

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| Almanac | Ṣubaiḥī Star-months (SHUHŪR AL-NUDJŪM) |
|---|---|
| *Kānūn* I (the 19th is Jan. 1st) | *Kānūn al-Awwal* |
| *Kānūn* II | *Kānūn al-Ākhir* or *al-ʿAḳab* |
| *Shubāṭ* | *Shubāṭ* |
| *Mārt* (*Adhār*) | *Adhār* |
| *Nīsān* | *Nīsān* (*Naisān*) |
| *Māyis* (*Aiyār*) | *Mabkar* |
| *Ḥazīrān* | *Ḥuzairān* |
| *Tammūz* | *Tammūz* |
| *Aghustūs* (*Āb*) | *Āb* |
| *Ailūl* | *Ailūl* |
| *Tishrīn* I | *Tishrīn al-Awwal* |
| *Tishrīn* II | *Tishrīn al-Ākhir* or *al-ʿAḳab* |

Like some other South Arabian agricultural calendars, the Ṣubaiḥī year is divided into three seasons which they name *Shitā* (commencing in *Nīsān*), *Ṣaif* (commencing in *Tammūz*), and *Shimāl* (commencing about the end of *Ailūl*, the name certainly meaning the South-East monsoon). *Shimāl* continues for about six months. It is significant that the year begins in April, as in the case of the star-calendars of other tribes.

The calendar-months of the Almanac are those of the Ottoman financial year [17] which at one time corresponded in number to the Moslem year, but through lack of adjustment, the financial year 1362 fell in the Moslem year 1365. The history of the Ottoman financial year is however irrelevant here and, in any case, complicated [18]. On March 1st 1917, the Ottomans changed from the Julian to the Gregorian reckoning, and this adjustment was presumably made in the Yemen (where the Turkish authorities collected the taxes on behalf of the Imām) at the same time. The Moslem year cannot of course be used by the fiscal authority as, being lunar, it does not correspond to the harvest-seasons. In this connection, RYCKMANS (17) holds that in ancient Arabia a stellar calendar was used for economic, and a lunar calendar for religious purposes.

I did not discover if the Ṣubaiḥīs use the Julian, Gregorian or any other reckoning for their star-months as they call the Syrian Christian calendar, and in any case their reckoning may not be scientifically very exact. Lahej [19] however, like the Yemen, uses the Gregorian reckoning, and if the Syrian calendar or Ottoman financial year was introduced during the Turkish occupation in the first World War the adjustment was made then.

For several reasons set forth elsewhere I am persuaded that the

[17] Professor P. WITTEK kindly enlightened me on this point, supplying the reference, J. MAYR, Probleme der islamischen Zeitrechnung (Mitteilungen zur osmanischen Geschichte). (Hannover 1926), II, III-IV, pp. 269-304.

[18] It is discussed in J. MAYR, op. cit.

[19] The Admiralty's Western Arabia and the Red Sea (14), generally highly accurate, seems to be mistaken here, suggesting that the Julian reckoning is still used in Lahej, but from other information it supplies, it is clear that the Gregorian reckoning is used.

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use of the Syrian calendar in Ṣubaiḥī country is older than either of the two Ottoman occupations of the Yemen. As I have shown [20], the district was in close contact with Christian tribes about the beginning of the Moslem era, if not actually itself Christian. The Syrian Christian months are used by ḤAMDĀNĪ [21] in the tenth century of the Christian era to indicate the precise seasons at which the harvest falls in the Yemen. It may of course be objected that, as a man of learning, he could be expected to have some acquaintance with the Syrian calendar. On philological grounds however there are circumstances which indicate a non-Ottoman origin for the Ṣubaiḥī use of the Syrian calendar. It is the Syrian names that are used for every month, and not *Mārt*, *Māyis*, and *Aghustūs*; but there is one exception, *Mabkar* is used for *Adhār*. This is in itself significant for the term *Bikār* (from the same root) is cited by GLASER [22] as the name of the season mid-June to mid-August, a season which would commence in the Ṣubaiḥī month *Mabkar* [23]. This name is then purely South Arabian. My informants seemed to be very imperfectly acquainted with the Moslem months and their sequence, and they knew them by names differing from the standard nomenclature of the Moslem year [24].

## III. A Yemenite Almanac

### 1. Preliminary Remarks

The almanac (*taḳwīm*), portions of which are translated or summarised here, was compiled by a certain MUḤAMMAD ḤAIDARAH [25] and covers the Moslem year 1365 H. which commenced on Dec. 5th, 1945 (i. e. lst *Muḥarram*). In order, however, to show the sequence of events from January to December, I have made the translation commence as if the compiler had dealt with a single solar year according to our reckoning.

According to the compiler's preface, he composed this almanac in the South Yemenite city of Ta'izz for the crown-prince Saif al-Islām Aḥmad, now Imām of Ṣan'ā', and he avers that it is used in the Government offices of the Yemen. It is based, he says on the almanac of al-Imām al-Mahdī [26],

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[20] Cf. Notes on Ṣubaiḥī Territory (Le Muséon). (Louvain 1953). 46, p. 128.

[21] *Ṣifat Djazīrat al-'Arab*, op. cit., p. 199. NASHWĀN B. SA'ĪD is noted in BROCKELMANN. S. GAL I 528 as having written a poem on the Greek months.

[22] Die Sternkunde (5), p. 89. A list of seasons given by him notes *Ḳiyāẓ* which finishes about the end of April, *Dithā* ending about mid-June, *Bikār* ending about mid-August, and *Ṣurāb* which ends about the last days of December.

[23] *Bikār* and *Mabkar* may refer to the rains which fall about this period, for certain words from the same root in Class. Arabic have this sense, and the information in the Almanac would assist such an interpretation. GLASER, op. cit., gives a reference to the word *Bikār* in the pre-Islamic inscription numbered GLASER 158.

[24] Their names for the months of the Moslem year seem to correspond to those given by LANDBERG, Glossaire Daṯînois (7), p. 1449 which in themselves are curious.

[25] See (12).

[26] I am unable to say whether a specific Imām is intended by this title or whether it is a general title applied to the late Imām Yaḥyā.

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and the reckoning (*ḥisāb*) of ʿALĪ B. ʿALĪ AL-YAMĀNĪ, formerly Shaikh al-Islām in Ṣanʿā'. One need not be surprised at astronomical knowledge in a religious dignitary, for as been noted, supra, the star-calendar has its religious as well as its practical uses. The author himself is described as "the *shaikh*, the scholar, the astronomer (*falakī*) at Taʿizz".

The almanac displays that curious blend of science and superstition common to all almanacs. The preface contains forecasts of portentous events, such as the appearance of a Mahdī who will be victorious over his foes; little captions at the sides give snippets of information such as "Manākhah is the Paradise of the Yemen, 500 feet above sea-level, with sweet water and fruits, and always cool", and "Djabal al-Manār is the highest mountain in the Yemen, 5000 feet high, and 10 miles E. of Ibb" [27].

MUḤAMMAD ḤAIDARAH claims that his almanac is not only indispensable to the official, but also to the peasant who must know the rising and setting of the agricultural stars (*nudjūm al-zirāʿah*), but he adds, significantly, "Now, concerning the seasons of sowing (*badhr*) and harvesting (*ḥiṣād*), I am unable to include them all, on account of the great differences between each district (*nāḥiyah*) and wādī". The last statement I have seen myself, to be true, and this fact was known to the early Arab geographers, including, of course, ḤAMDĀNĪ.

The almanac contains beside what is given here in translation, the Moslem date, the Ottoman Financial Year which is used for purposes of taxation, the European date, a column with the Mansion of the Moon for each day of the year, and a corresponding column showing the agricultural stars of which there are of course 28, but as the Moslem year is less than the solar year by about 11 days, the latter are not covered by the almanac. The sign of the Zodiac in which the Sun lies is also given. At the beginning, a list of the official festivals (*al-mawāsim al-rasmīyah*) of the Yemen is inserted. These festivals are :

New Moon of *Muḥarram*, Feast at the opening of the *Hidjrah* Year.
10th *Muḥarram*, Fast of '*Āshūrā*' Day.
12th *Rabīʿ* I, Birth of the Apostle of God.
17th *Rabīʿ* I, Birthday of H. M., Our Lord (*djalālat Mawlānā*), the Commander of the Faithful *al-Mutawakkil ʿala 'llāh* [28].
1st *Djumādā*, Birthday of his Noble Highness, Our Lord (*Ṣāḥib al-sumūw al-mufakhkham, Mawlānā*), the Honourable Crown-Prince (*Wali 'l-ʿahd al-akram*).
1st *Radjab*, Feast of the "Friday of *Radjab*" of the people of Ṣanʿā', and the Mashriḳ [29].
27th *Radjab*, Feast of the Honourable Night-Journey.

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[27] It would be interesting to know where the compiler has obtained this information, unless it be from Turkish sources.

[28] The late Imām Yaḥyā.

[29] The Eastern Yemen.

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15th *Sha'bān*, The Noble Night of Mid-*Sha'bān* (*Sha'bānīyah*). General Examination of Schools, preparatory to the holiday of the month of *Ramaḍān*.
30th *Ramaḍān*, End of the Fast, *Al-Waḳfah al-Ṣaghīrah* [30].
1st *Shawwāl*, Blessed *'Īd al-Fiṭr*, lasting 5 days.
1st *Dhu 'l-Ḥidjdjah*, First of the Ten of Moses [31], lasting 8 days.
9th *Dhu 'l-Ḥidjdjah*, *'Araṭah* Day, *Al-Waḳfah al-Kabīrah* [30].
10th *Dhu 'l-Ḥidjdjah*, Blessed Feast of the Sacrifices, lasting 8 days.
18th *Dhu 'l-Ḥidjdjah*, Going forth from the towns for *al-Nushūr*, and the mentioning on the *Yawm Ghadīr Khumm*, of the *Imāmate* of the Successor (*al-Waṣīy*) [32].

Two of these are specifically Yemenite festivals, most of the rest ordinary Moslem holidays. During *Ramaḍān*, Government offices are closed, and official duties performed in the evening only. Friday is a holiday.

The "Friday of *Radjab*" is said to be the date when the Yemen accepted Islam. The *'Īd al-Nushūr* on the 18th of *Dhu 'l-Ḥidjdjah* is a curious feast ; its name would imply that it had something to do with a Spring festival [33]. According to Col. MUḤAMMAD HASSAN [34] the Ṣan'ānis go out from Ṣan'ā' to an eminence some three miles away. Tents are set up, and some units of the army also are brought out for the occasion. At 9 a. m., in the presence of the Imām and his ministers, poets and orators recite poems and addresses on the subject of the renewal of allegiance to the Imām. The Imām himself takes his rifle and fires at a special target [35], then his sons do likewise, and others follow suit. The ceremony concludes with an equestrian display, terminating at 12 noon. To this doubtless ancient ceremony, it is probable that the Zaidī rulers of the country have attached the ceremony of the Day of the Spring of Khumm, the latter a little place between Mecca and Medina known to the mediaeval Arab geographers such as YĀḲŪT. It was here, according to my Aden correspondent, on the 18th of the month of *Dhu 'l-Ḥidjdjah* that, on his last pilgrimage, the Prophet made a declaration in which he said, "Of whomsoever I am Lord (*Mawlā*), 'Alī is his Lord" [36]. The Zaidīyah and Bohras took this tradition and use

[30] This name is taken from the halt at *'Araṭāt* (*al-wuḳūf li-'Araṭāt*), and applied first to the *'Īd al-Aḍḥā*, and then by analogy to the Feast of the Breaking of the Fast at the close of *Ramaḍān*. See G. E. VON GRUNEBAUM, Muhammadan Festivals, 1951.

[31] Presumably the Ten Commandments.

[32] 'Alī the Prophet's son-in-law is intended.

[33] According to LANE it means the becoming green of land after summer rain, or the first herbage coming forth after the *Rabī'* rain.

[34] *Ḳalb al-Yaman* (Baghdad 1947), p. 161. Cf. E. ROSSI, L'Arabo parlato a Ṣan'â', p. 93.

[35] This is quite a common part of ceremony in S. Arabia. When we visited the 'Awdhalī Sultan in 1940 he fired a shot over our heads at a mark on the other side of the wādī.

[36] This tradition and the incident are quoted in the *Madjmū' al-A'yād* of MAIMŪN B. AL-ḲĀSIM AL-NUSAIRĪ ed. R. STROTHMANN, Der Islam (Berlin 1943), 27, p. 45, and AL-BĪRŪNĪ, The Chronology of Ancient Nations (8), p. 333, etc.

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it in support of their contention (which they maintain in common with all Shī'ah that 'Alī, Muḥammad's son-in-law, was his lawful successor). They give orations at a place where there is water in which they revile Muḥammad's successors Abū Bakr and 'Umar for taking, as they assert, the place of 'Alī.

## 2. The Yemenite Almanac of Muḥammad Ḥaidarah

### January

1
2 Mustard (*tartar*) is planted [37].
3 The tree leaves fall.
4 The cold in Aden increases.
5 The time is now suitable to plant madder (*fuwwah*) if planted.
6 Much dew.
7
8 The ground is trenched.
9 Abundance of oranges (*burtuḳāl*, but this word also means snuff).
10 Much hoar-frost (*ṣaḳī'*) and intense cold.
11 Drinking of water at sleep is forbidden.
12 Beef is avoided.
13 The face of the earth becomes green.
14 The *ḳiyāḍ* [38] of white *'alas* (rye) [39].
15 Rain is expected. Grafting of vines [40].

---

[37] According to the Military Report on the Aden Protectorate (Simla 1915), *tartar* means mustard-seed.

[38] *Ḳiyāḍ*, evidently employed here simply in the sense of harvest, was defined by my Aden correspondent as the season in which fruits and chick-peas (*'atar*) are planted, after the grains are harvested. A variant spelling is *ḳiyāẓ*, similar to the Class. Arabic *ḳaiẓ*, summer season. The peasants of the highland plain of the Yemen, according to E. Rossi, L'Arabo parlato a Ṣan'â' (16), p. 151, have four seasons, *ḳiyāḍ* raccolto del tardo inverno, *dithā'*, raccolto di primavera-estate, *'allām*, stagione delle piogge, *ṣurāb*, raccolto di autunno. These names resemble terms used in the pre-Islamic inscriptions. Landberg, Gloss. Daṭ, op. cit., gives *maḳīẓah* from the same root, meaning Spring. The seasons for *dhurah* in Tarīm are, *mūsim* (*dhurah*) planted after the floods *ṣaif*, planted at *Zabrah*, cropping in three months, and *shitā* planted at *Baldah*, cropping after six months.

[39] *'Alas* was said by my Aden source to mean wheat (*burr*, *ḳamḥ*), but a very white variety of it. Rossi, op. cit., renders it simply as grano. P. W. R. Petrie & K. S. Seal, A Medical Survey of the Western Aden Protectorate 1939-40 (Colonial Office, Dec. 1943), Middle East No. 66, p. 106 is the authority for the rendering as rye. 'Abd al-Wāsi' b. Yaḥyā, *Tārīkh al-Yaman* (Cairo 1346), p. 283, gives another name *nusūl*, by which it is known in the Yemen.

[40] The Yemen has many types of vine, distinguished, like palmtrees in Ḥaḍramawt, Iraq, etc., by name. 'Abd al-Wāsi', op. cit., p. 284 (cf. 1947 edition, p. 30) gives a list of these names, distinguishing 24 varieties of which 18 are grown in the vicinity of Ṣan'ā'. Some of these may be named after localities, such as *Tabūkī* from Tabūk in N. Arabia, *Shāmī* (perhaps from Syria or N. Arabia). Curiously enough many of these names are known to Ḥamdānī, *Ṣifat Djazīrat al-'Arab*, op. cit., p. 196, including the variety still known in the Yemen as *Rūmī*, which I suppose must therefore be rendered as Greek. For a list see also Muḥammad Ḥassan, *Ḳalb al-Yaman*, op. cit., p. 83.

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16 Planting of sour pomegranates (a small sour green type).
17 The grain harvest (*ḥiṣād*) begins in Tihāmah.
18 *Fattah* (flat bread chupattis shredded into pieces) with honey must be eaten.
19
20 Hot foods are eaten.
21 The inside of the earth becomes hot.
22 Trees are planted.
23 The first of *Rabīʿ*. The sun is in *Dalw* (Aquarius).
24 Sugar-cane cut [41].
25 Roses collected till *Nīsān* (April 14th).
26 Cutting out of clothes is praised.
27 Small palms transplanted.
28 Planting of figs ends.
29 Young vine-shoots (*gharīsah*) transplanted.
30
31 Contracting of marriage is praised.

**February**

1
2 In Aden the cold increases greatly.
3 The eating of nuts (*djawz* [42]) and almonds (*lawz*) is praised.
4
5 Tamarind (*ḥumr*) collected.
6 Birds court.
7 Cotton and melons (*baṭṭīkh*) are planted.
8 Camel-stallions on heat.
9 Milk and cream abundant.
10 Substances move in the body.
11 Vines are planted.
12 From now, fruit-bearing trees are planted.
13 Birth of Muḥammad.
14 The harvest (*ḳiyāḍ*) of wheat (*burr*), harvested (*yuḥṣad*) till the end of *Shubāṭ* (March 13th).
15 Sugar-cane planted.
16 Male goats (*tais*) and rams (*kabsh*) come on heat.
17 Sesame (*djuldjulān*) is sown in Tihāmah at the running springs (*ghail*).
18 Birth of His Majesty, the Imām of the Age, the Commander of the Faithful in *Rabīʿ* I, 1286 H. (1869-70 A. D.) at al-Shahārah, and acknowledged Caliph in 1322 H. (1904-5 A. D.) in the Mosque (*Djāmiʿ*) of Ṣanʿā' [43].

[41] According to ʿABD AL-WĀSIʿ, op. cit., p. 284, brown sugar is manufactured in the Yemen where it is called *ʿAṭawī*. In Ṣanʿā' sweetmeats used at feasts and marriages, are manufactured.

[42] ROSSI, op. cit., gives this word the simple meaning of nuts, but properly it means walnuts, which according to Western Arabia and the Red Sea, op. cit., are grown in the Yemen.

[43] The notice refers to the late Imām Yaḥyā Ḥamīd al-Dīn, murdered on the high road in 1948 along with a number of his close relatives.

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19
20
21 Sowing of grain in al-Rabādī and Ḥubaish [44].
22 The last of the blowing of the South Wind (*Azyab* [45]). *Al-Ḥūt* (Pisces).
23 Sexual desire (*bāh*) begins to be noticed.
24 Sugar-cane is planted.
25
26 Sap runs in the wood to the top of it.
27 Night and day are equal.
28 Cabbage (*lahānah* [46]), i. e. *kurunb* (an Egyptian word) is planted.

**March**

1 Grape-vines (*'inab*) are irrigated.
2 Day begins to grow longer.
3 End of tree-planting.
4 The wolf comes out, and lice (*barāghīth* [47]) stir.
5 Pruning (*taḳlīm*) of grape-vine-stocks.
6 Contracting of marriage is avoided.
7 Eating of roast meat (*ḥanīdh*) approved.
8 For eight days copulation is avoided.
9 The pollenating winds (*lawāḳiḥ*) blow, the heat appears, wild beasts and the goat (*mā'iz*) bear, and birds sing.
10
11 The first of the violent wind (*al-ḥusūm*), and the days of intense cold (*al-'adjūz*) [48].
12 Roses and flowers planted.
13 Grapes are abundant in some districts.
14 *Adhār*. The opening of financial year 62 [49].
15 Indian banana (*al-mawz al-Hindī*) planted.
16 Black cummin (*ḥabbah sawdā'* [50]) is sown in hot districts and taken after half a year. The days of violent wind (*al-ḥusūm*) come to an end.

[44] Al-Rabādī (perhaps Ribādī or Rubādī), is said to be the name of a group of villages.

[45] Rossi, op. cit., p. 244, gives "vento da sud, *Azyab* o *'Adanī*". Mukallā dhow-men described it as a wind blowing westwards. It is found in Ḥamdānī, op. cit., p. 154 and Abū Makhramah, see O. Löfgren, Arabische Texte zur Kenntnis der Stadt Aden im Mittelalter (Uppsala 1936-50), p. 37. It seems to be known in Aethiopic.

[46] Cf. Rossi, op. cit., p. 164, cavolo.

[47] *Barghūth* is said by my Aden correspondent to have this sense in Ta'izz. In Class. Arabic it means gnats, etc.

[48] According to my Aden correspondent, the intensely cold days of *al-'Adjūz* come at the very end of the cool weather, and are so named because the old woman (*'adjūz*) and old man feel the cold then acutely. Lane, Lexicon, gives this period as coming under the star *al-Ṣarfah*.

[49] The opening of the Ottoman financial year 1362, corresponding to 11th *Rabī'* II, 1365 H.

[50] Also called *kuḥṭah* ('Abd al-Wāsi', p. 286) a very well known condiment and medicament in Arabic literature. R. Dozy, Supplément aux Dictionnaires Arabes,

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17
18
19 Young locusts (*dabīb*) begin to appear.
20 Contrary tempestuous winds.
21 Grain is winnowed at Ibb and Djiblah and its district.
22
23
24 The sun in its height at the Zodiacal sign (*burdj*) *al-Ḥamal* (Aries), remaining in it a month.
25
26 The *khaṭāṭīf* (birds of prey) (called *sawaiyad*) appear [51].
27 Goat-meat (*djidā'*) eaten.
28 Red millet (*dhurah*) sown, and harvested after seven months.
29
30
31 Snakes open their eyes, and the pollenating winds (*lawāḳiḥ*) blow.

**April**

1
2 Beginning of the fall of the rains in the East and South-East of the Yemen until August.
3
4 The light parts of the waters of the seas evaporate, and their waters thicken [52].
5
6 Sowing of grain in al-Suḥūl and Djiblah etc.
7 Turbulence of the sea.
8 Copulation is praised.
9 Times of bleeding and cupping.
10 Trees in leaf.
11 *Mashwī* (sheep stuffed with rice and eggs) eaten.
12 Contracting of marriage praised.
13 Presentation of respects to Kings approved.
14 Grain sown in the hot and temperate districts, and plucked after four months, and, in Tihāmah, "vigna sinensis" (*didjr*) etc., is plucked after 75 days.
15
16

---

I, 242, quotes the following relevant notice from the author IBN AL-BAIṬĀR (ob. 646 H. 1248 A. D.), "des grains noirs qui viennent du Yémen et dont on se sert pour guérir les maladies des yeux".

[51] *Khaṭāṭīf* seems to be a plural of *khuṭṭāf*, a bird of prey, of the desert, according to LANE's Lexicon.

[52] The month of April has a very high humidity, on an average only two degrees below that of July; perhaps this is what the writer of the almanac intends.

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17 Planting of the broad bean (*fūl*) is suitable in cold places, but it is unsuitable elsewhere; it is harvested after six months.
18
19 The beginning of coming down of the rains on the hill-slopes. Palm-trees are fertilised.
20
21 The insects of the ground appear [53].
22 End of the ascendance of the sun.
23 *Ṣaif*. The sun is in *Thawr* (Taurus).
24 The heavy rains on the hill-slopes begin, and the heat intensifies.
25
26 The summer (*Ṣaif*) of Aden continues on till September.
27 The blowing of the North Winds (*Shimāl*).
28 Planting of *dhurah* begins in Ḥudjarīyah at the end of the month [54].
29 Strawberry (*tūt*) and lemon drink used.
30 Winnowing.

**May**

1
2 The heat in Aden intensifies.
3 Birds bear chicks.
4
5 The South Wind (*Djanūb*) blows, and the wādīs expand and over-flow.
6
7 Light clothing is worn.
8 Lemon drink is used.
9 Eating of salty things is avoided.
10
11 Eating of *fattah* with meat is found agreeable.
12 The blood stirs (i. e. sexual potency is said to increase).
13 Fruit bunches, and almonds become ripe.
14 Sowing of barley (*sha'īr*) in some of the country.
15
16
17 The *Kāwī* wind [55] blows in Aden.
18 Eating the flesh of male goats (*tais*) is forbidden.
19

---

[53] In Dhala (Ḍāli') about this date, I noticed an insect with transparent wings which seemed to come out of a hole in the ground. On discovering this, our Awlaḳī soldiers began to eat the insect which they knew under the name of *shaḍawī* or *shaḍī*. Perhaps allusion to this is intended, or the statement may be general. For similar practices cf. Djāḥiẓ, *Ḥayawān* (Cairo) VI, 398.

[54] This entry falls about the end of *Djumādā* I, and it is no doubt this Moslem month which the writer means.

[55] Landberg, op. cit., p. 2598, gives the sense of "contrarier" for *kāwī*. The Arabs say that this *Kāwī* wind helps to ripen the date-crop (*Kharīf*).

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20 Sowing of *gharb* (giant millet, "sorghum vulgare" [56]) and pennisetum (*dukhn*) in al-Ḥudjarīyah.
21 Copulation is avoided.
22
23
24 The first of the breezes (*bawāriḥ* [57]). *Al-Djawzā'* (Gemini).
25
26 Contracting of marriage is avoided.
27
28
29 The *Ṣabā* wind stirs, and sea-voyaging is good.
30 The cool wind stops in Aden.
31 The Friday of *Radjab* [58] in Ṣan'ā' and the East (Mashriḳ).

**June**

1
2 Planting of pennisetum (*dukhn*) in Tihāmah and the hot districts.
3 The falling of the rains begins in the high ground, and the flowing of floods (*sail*) in Tihāmah [59].
4
5 The crops become green.

---

[56] Military Report, op. cit., gives *gharib*, coarse red jowari. PETRIE, loc. laud., gives a variant, *ghorba*. In Wāḥidī territory *gharbah* was defined to me as a kind of *dhurah* resembling the *Ḥabashī* type. In Lahej according to the *Hadīyat al-Zaman* (see footnote no. 59, infra) the best kinds of *dhurah* (*dhourra*) are *Bukr*, *Baiḍā'*, *Ṣaif*, and *Shām*. It is also known there as *Hind*. *Bukr*, called *Ḥaimar* in Dathīnah, is red, *Ṣaif* is white.

[57] In Ḥaḍramawt, *barāḥ* a breeze, this pl. is probably connected with it.

[58] The first Friday in *Radjab* is a feast-day. See MUḤAMMAD ḤASSAN, op. cit., p. 162, and supra. By the Mashriḳ, the eastern part of the Yemen is meant.

[59] The mountain rains cause floods which come down the wādī beds to the Tihāmah plains where bunds are ready to catch the water and lead it into the fields. A list of the names for the irrigation bunds and fields is given by AḤMAD FAḌL B. 'ALĪ MUḤSIN AL-'ABDALĪ, *Hadīyat al-Zaman* (Cairo 1351 H.), p. 32, which is worthy of note because these terms occur in placenames. "The bunded channels leading the water off the main wādī (*a'bār*, sing. *'ubar*) split off into lesser channels (*sawāḳī*), called *ashrudj*, singular *shardj*. Every *ḥaḳl*, (which is any land which is bunded [*tasawwam*] with a wall of earth to retain the water) is called a *faladj* or *dahil*, and what is smaller than that is called a *djirbah*, while what is smaller than a *djirbah* is called a *fakhkhah*. A field at the upper part of the channel (*'ubar*), or the wādī, is (*marda'*), and fields at the lower part of the channel or the wādī are called *mantā'*. Each *djirbah* or *dahil* has a name (of its own) by which it is distinguished from others." — N. B. the vowelling of *fakhkhah*, *marda'*, and *mantā'* is doubtful as the text is unvowelled and these words are not known to the lexicons. Another land measure is the *ḍamad* equivalent to the Ḥaḍramī *hidjdj*, the amount of land which a pair of oxen can plough in one day. Other terms of topographical interest in use in Ḥaḍramawt are *muṣfā*, a wide channel carrying water from a well to the crop *mi'dāh*, a kind of conduit from the well to the field of clay or stone, and *kadhīr* the clay mound between each *maṭīrah* or irrigation-bed. In Yemen the *maṭīrah* probably corresponds to the *libnah* ('ABD AL-WĀSI', op. cit., p. 289) which is 10 cubits (*dhirā'*) square.

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6 Disease and plague are lifted by the permission of God.
7 The hot winds (*samā'im* [60]) commence, and the grapes turn black.
8
9 The West Wind (*Dabūr*) [61] blows.
10 Rice is planted.
11 Bodies become strong (or lusty) [62].
12 The ground becomes split [63].
13 Diseases (*'āhāt*) and bad smells are lifted.
14 Sowing of *gharb* [64] in hot districts.
15 Pennisetum (bullrush millet, *dukhn*) planted in the mountains.
16 The heat intensifies to a peak in Aden.
17 The longest day in Ṣan'ā', 13 hours, 20 minutes.
18 The fall of the rain-period (*nuḳṭah* [65]) on Tuesday night [66].
19 The *Kāwī* wind intensifies.
20 Entering the Bath is found agreeable.
21 The times for using acid (*ḥawāmiḍ*) (drinks or fruits ?).
22 The rain-period (*nuḳṭah*) of Cancer (*Saraṭān*).
23 The period of the blowing of the hot wind (*samūm*) for 70 days. *Al-Saraṭān* (Cancer).
24 Winnowing of wheat (*burr*) in Ibb from the 15th of June to the 11th July [67].
25 Collection (*ḳiṭāf*) of honey [68].

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[60] LANDBERG, op. cit., *samūm*, vent brûlant.

[61] The name *Dabūr* was known to ḤAMDĀNĪ, op. cit., p. 154. The following terms, used by seamen, were given me by a Mukallā dhow-master, *Dābir*, West (*dabbar*, to go westwards), *Mākhir*, East (*makhkhar*, to go east-wards).

[62] The word is *ḳuwwah*, "strength", usually, "sexual powers".

[63] By the splitting of the ground, the muddy surface of the wādīs and their fields may be intended. This ground is run smooth by the floods, then dries in the heat; its surface cracks and peels. After this entry, in brackets, appears the word *al-taḥārīḳ* which I have not been able to have explained satisfactorily. Perhaps the senses given in the lexicons may apply, i. e. "the burning up of herbage by the heat"

[64] See footnote no. 54, supra.

[65] The term *nuḳṭah* (lit. "point"), is applied to rain which falls on a certain known day, and then ceases abruptly.

[66] This notice really relates to the 17th of June, because, according to Arab reckoning, the 18th of June would commence at 6 p. m. on the 17th of our June.

[67] The text says, "between the two *Ẓulms*", for which see table III, col. 2.

[68] For bees and honey, see H. SCOTT, In the High Yemen, London 1942, pp. 58-9, & W. H. INGRAMS, Bee-Keeping in the Wadi Du'an (Man). (London 1937.) 37, No. 33. The following notes are supplementary. Summer honey is called *Shawwah* or *Ṣaifī* in Daw'an (Du'an); it is said to be hot, the bees feeding on *sumur* (acacia) flowers. The autumn honey is called *Kharfī* because it comes in *Kharf* (i. e. *Kharīf*) at the star *Buṭain* (which would fall at the end of *Kharīf* according to LANDBERG's *'Amaḳīn* calendar, i. e. 7th-21st October); it is cool, the bees having fed on *'ilb*-flowers (Zizyphus Spina-Christi). In Daw'an there are usually two honey-seasons (*wādjibāt*) each year, but there are sometimes three seasons, one falling in the season *Rabī'*, besides *Kharf* and *Ṣaif*. During *Rabī'* the bees feed on *'ilb*, and the honey is called after the season, *Marba'ī*, like the two other collections. It is interesting to find that PLINY SECUNDUS reports two types of incense, Carthiathum and Dathiathum, which

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26 Evening of the blessed Night-Journey [69].
27 The waters sink into the earth, and the breeze (*hawā'*) lightens.
28 Sowing of Arab wheat (*burr*, a small-eared Yemenite kind smaller than that found elsewhere), and barley.
29 Sowing of *khashkhāsh* (poppies, usually pronounced *khashkhash*) [70], and *mūmah* [71]. It is plucked after five months.
30 Close of the season of rain in the hill-slopes (probably the flat part at the foot of the mountains is meant).

**July**

1 The lengthening of the day comes to an end.
2 The heat intensifies in the Yemen.
3 Drinking of purgatives avoided, except of necessity.
4
5 Perfuming oneself with scents is found agreeable [72].
6
7 The hot winds (*samā'im*) blow for 51 days.
8 Planting of bullrush millet (*dukhn*) in the hot and the temperate districts.
9 *Kinib*-millet [73] and *ṭuhuf* (*ṭahaf*, "myrica gale") are planted, and harvested after 70 days.
10
11 The last of the breezes (*bawāriḥ*).
12
13 The Night of Mid-*Sha'bān* (i. e. 14th *Sha'bān*) [74].
14
15 Sowing of white *'alas* (a sort of wheat) [75], *ḥilbah* (fenugreek, Trigonella Foenumgraecum) [76], barley, and lentils (*'adas*), and plucked after three months.

---

would correspond to *Kharfī* or *Kharīfī*, and to a word *Dithā'ī*, from the season *Dithā* for which see footnote no. 38, supra. The text with the Ḥimyarite equivalents may be consulted in C. CONTI ROSSINI, Chrestomathia Arabica Meridionalis, Roma (1931), p. 22. Al-Baḥr al-Zakhkhār (Cairo 1949) III, 408 gives the Yemenite equivalents *Rabī'ī* and *Ṣaifī*.

[69] Koran, Sūrah, XVII.

[70] ROSSI, op. cit., p. 168, *khiṣhkhāsh*, semi di papavero, sedativi.

[71] *Mūmah*, the cotton seed (*bazrah ḳuṭnah*), made into medicaments placed on boils to bring out the solidified pus.

[72] Yemenites are greatly addicted to perfumes. One perfumes one's clothes by sitting over a censer of burning frankincense as in ancient Baghdad. They often sprinkle perfumes over departing guests. There are many other such practices.

[73] For *kinib*, see C. v. LANDBERG, Arabica V (Leiden 1898), p. 213; Western Arabia, op. cit., p. 595. *Ṭuhuf* is known to HAMDĀNĪ, op. cit., p. 199. See LÖFGREN, Arabische Texte, op. cit., glossary.

[74] A Moslem feast; it was also the date of the pilgrimage to the tomb of the Prophet Hūd from ancient times.

[75] See footnote no. 39, supra. See also LANDBERG, Gloss. Daṭ., op. cit.

[76] PETRIE & SEAL, op. cit., p. 109. The seeds are ground and water is added to the powder. This water is then poured off, and the remaining paste beaten with fresh water. It froths, thickens, and rises; at this stage various condiments, vegetables, or even fish are added.

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16
17 Dates collected.
18
19 Rise of the Yemenite Sirius (*al-Shi'rā al-Yamānī*).
20 Locusts die.
21 Male goat meat (*tais*) is harmful at mid-day.
22
23
24 The first of *Kharīf* of the Yemen. The sun in *Asad* (Leo).
25 Planting of lucerne (*ḳaḍab*) is not suitable during the whole of the season of *Kharīf* only; rain and cold are harmful to it.
26
27
28 The night begins to increase.
29 Care must be taken not to overload the stomach.
30 One bathes in cold water.
31 The first of the seven days of *al-Bāḥūr* [77].

**August**

1
2 The lice (*barghūth*) go [78].
3 Cutting out of clothes is praised.
4 Entering the Bath is found agreeable.
5 The rain-flood (*sail*) is expected in Tihāmah.
6 Affections of the eye (*ramad*) increase in the heat.
7 Carrots (*djazar*) and water-melon (*baṭṭīkh*) planted.
8 Copulation is forbidden on account of the intense heat.
9 Wheat (*burr*) reddens.
10 The waters sink (into the earth).
11 Grapes and figs become sweet.
12
13 All fruits ripen.
14 The first of the Bear Constellation (*Banāt Na'sh*) appears.
15 Plucking of fruits begins.
16 Planting of *gharb* (giant millet, "sorghum vulgare") in part of Tihāmah.
17 Planting of *dhurah* in Zabīd and Rima'.
18 The latter part of the night becomes cold.
19 The rain-floods (*sail*) irrigate Tihāmah.
20 The eating of fruits is agreeable.
21 Milk is scanty in the udder.
22 Contrary winds.
23 The Blessed *Lailat al-Ḳadar* [79]. *Al-Sunbulah* (Virgo).

---

[77] *Al-Bāḥūr* is the name applied to the hottest days of July (Class. Arabic).
[78] See footnote no. 47, supra.
[79] The Night of Power, Koran, Sūrah, XCVII.

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24 Leaves of the trees change.
25 Quinces (*safardjal*) and pomegranates (*rummān*) abound.
26 Contracting of marriage praised.
27 Melons (*ḥabḥab*, a large green melon with pink flesh), garlic (*thūm*), and onions (*baṣal*) planted.
28 Curdled milk (*al-laban al-rāyib al-ḥaḳīn*) is employed (for its cooling properties).
29 *Fidjl* (radish, "Raphanus sativus") (i. e. the Yemenite *baḳal*) is planted.
30
31 Cessation of the rains in the mountains.

**September**

1 The second (star) of the Bear Constellation.
2 The rain-floods (*sail*) cease in Tihāmah.
3 The third (star) of the Bear Constellation.
4 Planting of *bīnī* and *ḥidjnah* in Tihāmah, red and white *dhurah* (*al-thālithī*) [80].
5
6
7 The heat abates, and fish are born.
8
9
10 Ripe dates (*ruṭab*) and grapes abound.
11 The fourth (star) of the Bear Constellation.
12 The *Kāwī* (wind) lightens in Aden.
13
14
15 Fruit-trees planted in some of the sunny districts.
16 Time of planting the vine and pruning it.
17 Cucumbers (*khiyār*) are collected in the provinces (*nāḥiyah* [81]) and administrative district of Ta'izz.
18 Sour pomegranates, figs, and the prickly pear (*al-balas al-Turkī*, or *al-shawkī*) [82] are planted.
19
20 Grapes are plucked. The sap rises to the top of the trees.
21 Green grain (*djaḥīsh al-ḥubūb*) in the *liwā'* (a larger administrative district than the *nāḥiyah*) of Ta'izz.

---

[80] *Bīnī* and *ḥidjnah* must, from the text, be respectively, species of red and white *dhurah*. They also seem to be called *al-Thālithī* which my Aden informant avers, refers to the star, by name *al-Thālith* at which these grains are planted, i. e., the third (*thālith*) star of the Bear Constellation.

[81] For administrative units of the Yemen see NELLO LAMBARDI, Divisioni amministrative del Yemen. Con notizie economiche e demografiche (Oriente Moderno). (Roma 1947), 27, pp. 142-62.

[82] ROSSI, op. cit., p. 164, *balas Turkī*, fico d'India, the prickly pear, so called in Ta'izz, in Ḥaḍramawt, *tīn barshūm*.

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22 The winds blow.
23 The crows come to the fields. *Al-Mīzān* (Libra).
24 The fifth (star) of the Bear Constellation.
25 Planting of *al-Khāmisī* [83] in Tihāmah, grain.
26 Quinces and pomegranates come to an end.
27
28 Grain-harvest in the districts of the Mashriḳ (i. e. Eastern Yemen).
29 The end of the *Kāwī* wind in Aden.
30 The heat in Aden ends.

**October**

1
2 Sixth (star) of the Bear Constellation.
3 Planting of *Sābi'ī* [84] in Tihāmah, grain and "vigna sinensis" (*didjr*).
4
5 Chick-peas (*ḥumuṣ*) [85] planted along with *dhurah* (*ṣawmī*) [86] and plucked after three months.
6 Aden winter, from October till March.
7 Abundance of lemons (*līmūn*).
8 The harvest (*ḳiyāḍ*) [87] of broad beans (*fūl*) and curcuma (*'uṣfur*, syn. *kurkum*) in the Mashriḳ.
9 The harvest (*ḳiyāḍ*) of barley (*sha'īr*) in al-Djanadīyah and the surrounding districts.
10 Lemon drink is made.
11 Moist foods are employed.
12 Drinking of water at night is disapproved.
13 Eating of *tharīd* (*fattah* [88] with meat) is found agreeable.
14 The *Ṣabā* wind rises [89].

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[83] An allusion to the grain planted at the fifth star of the Great Bear constellation. E. GLASER, Sternkunde, op. cit., says that *Khāmis*, *Sādis*, and *Sābi'*, are the chief stars of the Bear. Cf. table II, col. 3.

[84] Grain planted at the seventh star of the Bear.

[85] Another term for *ḥumuṣ* is *ṣunburah* or *ṣumburah*.

[86] According to the Military Report, supra, *ṣawmī* is red *jowari* (millet), better than *gharib* (see footnote no. 56, supra).

[87] For *ḳiyāḍ*, see footnote no. 38, supra.

[88] *fattah*, flat chupatti bread shredded into pieces and moistened; here it is made into a dish known as *tharīd*, a dish which the Prophet greatly liked.

[89] The *Ṣabā* wind according to ḤAMDĀNĪ is also known as *al-Ḳabūl* (op. cit., p. 154), and it blows in the reverse direction from the *Dabūr* (see footnote no. 61, supra). According to the Mukallā dhow-master, the main winds are *Azyab* which blows to the west, *Shamāl* which blows from the land to the sea and takes one to India (known in the Wāḥidī area as *al-Ḳaws*), *al-Barrī* which takes you from the land to sea, *al-Rudūd* (or *al-Ḥādjah*, or *al-Ḥāyah* in local pronunciation) which carries you to the coast. A calm is *al-Ḥawāl* or *al-Shawāl*. Daw'anis gave me the following names for winds in their Wādī, *al-'Ilyā* (in *Ṣaif*) a wind blowing inland from the direction of the sea, *al-Shimāl* (in *Shitā*) a wind from the North, *al-Sharḳī* a wind from the East, *al-Ḳiblī* a wind from the West; they knew also *al-Ḥabbānī* (lit. from Ḥabbān) blowing from

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15 In al-Ḥudjarīyah the green ears (of *dhurah, djaḥīsh*) begin.
16
17 The movement of copulation abates.
18
19
20 The harvest (*ḥiṣād*) of grains in part of al-Ḥudjarīyah.
21 Looking at the clouds is praised.
22 The drinking of soft drinks (*al-muraṭṭabāt*, such as pomegranate, almond, *tūt* [strawberry] [90] lemons and limes) is found agreeable.
23 The first of *Shitā'*. The sun in *'Aḳrab* (Scorpio).
24 Blood-letting (*ḥadjāmah*) and bleeding (*faṣd*) disapproved.
25 The waters sink (into the earth), and the sea is disturbed.
26 The *Azyab* wind [91] blows from the N. E. to the S. W.
27
28
29 Planting of wheat (*burr*) in the Ta'izz district (al-Ta'izzīyah) where there are perennial streams (*ghail*) until mid-*Tishrīn* II (November 28th).
30
31 When wood is cut, it does not get wormed [92].

**November**

1 Presentation of respects to Kings approved.
2 The harvest (*ḥiṣād*) of grains, *gharb* (giant millet, "sorghum vulgare"), begins in al-Ḥudjarīyah.
3 The cool breeze (*hawā'*) begins.
4
5 Mosquitos (*nāmis*) and gnats (*ba'ūḍ*) abound.
6 The cold at the latter part of the night is harmful.
7 Violets (*binafsadj*) planted.
8 The contracting of marriage is found agreeable.

---

the South-West at the time of floods (*sail*). I have little doubt but that the names given by HAMDĀNĪ, in his section on winds, might be discovered to be still in use.

[90] The *tūt* is probably the strawberry, though lexicons give mulberry. My Aden source says that it is made into a drink in the Yemen which does the blood good and temperates the heat. Almonds are ground and made into a sort of drink but I do not consider it very palatable.

[91] For *Azyab*, see footnotes nos. 45 and 89, supra. According to another source this wind lies between the *Shamāl* and *Dabūr* winds. The opposing wind to the *Shamāl* is the *Djanūb*, blowing from the Yemen.

[92] In Daw'an, *'ilb* is cut in winter and seasoned for one year. Then nothing will eat it. If it is cut in *Kharīf* the white wood will be eaten by the white ant, but not the red parts. IBN AL-MUDJĀWIR, *Tārīkh al-Mustabṣir*, ed. O. LÖFGREN (Leiden 1951), p. 81, says that wood cut at the period known as *Layālī al-Bīḍ*, or during the waning of the moon will get wormed. At 'Azzān an insect vaguely resembling a bee and called *khanḍarūr* flew into our room and the Arabs said that it eats wood; perhaps it is Vespa orientalis, see H. SCOTT, In the High Yemen, op. cit., p. 66.

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9 The eating of rice of *al-zurbiyān* (a dish containing the ingredients, meat, ghee (*saman*), saffron, cardamom (*hail*), cloves (*ḳurunful*), an Indian or perhaps even Persian dish) is found agreeable.
10 The contracting of marriage is disapproved.
11 Wool is worn.
12 Kites (*ḥid'ah*), vultures (*rakham*) [93], and (the birds of prey called) *sawaiyad*, go to the low-lying land (*ghawr*, which is also a name applied to the western part of Tihāmah).
13 Ants hide themselves in the hollow of the earth.
14 In Ibb; "The bull (*thawr*) does not enter in *al-Thawr* (the star) [94]."
15 The barley harvest (*ḥiṣād al-sha'ir*), lasting half a month in the mountains.
16
17 The South winds (*riyāḥ al-djanūb*) blow.
18 Insects hide themselves.
19 Moistness of the atmosphere commences.
20 The sea is disturbed.
21 Mists (*ghaim*) are frequent.
22 In al-Ḥudjarīyah the harvest (*ṣurāb*, Rossi, raccolto di autunno) of *dhurah* begins. When wood is cut it does not worm.
23 *Al-Ḳaws* (Sagittarius).
24-30th No notices as they fall in the next Moslem year.

**December**

1-4 Notices also lacking.
5 Drinking of cold water at night is forbidden.
6 Toasted and dry foods (*ḳawālī* [sing. *ḳalīyah*] *wa-nawāshif*) are eaten (by toasted foods locusts or maize-cobs [*hind*] parched in girdle pans or ovens [*afrān*], or green ears [*djaḥīsh*] etc. are meant, and by dry foods, almonds, broad beans [*fūl*] etc.).
7 Harvest (*ḳiyāḍ*) of wheat (*burr*) [95] after the *dhurah*.
8 Flies and mosquitos (*nāmis*) begin to die.
9 The sniffing of scents is praised.
10 The cold intensifies in Aden.
11 Mid-day (*ẓuhr*) reaches 6 hours, 22 minutes.
12 The waves of the sea become long.
13 *Tāsū'ā'*-day (9th *Muḥarram*).
14 *'Āshūrā'*-day (10th *Muḥarram*); it is customary to fast it [96].

[93] Vulture (*rakham*), but this dictionary rendering may not be exactly what one would call a vulture in English.

[94] "The bull does not enter in *Thawr*", is a widely used and ancient cliché, explained to me as meaning that beasts do not go out to the fields at this star.

[95] According to 'Abd al-Wāsi', loc. laud., the best variety of wheat grown in the vicinity of Ṣan'ā', is a whitish-red type called *al-Burr al-Bawnī*, deriving its name from the plain of al-Bawn, about six miles N. of Ṣan'ā'. Another type is called *al-Samrā'*, said to be reddish-black, and is grown in *Shu'ūb* and *al-Ṣāfiyah* near Ṣan'ā'.

[96] The 9th and 10th of *Muḥarram* are important as feast days and fast days, the latter being traditionally the date of the death of the Prophet's grandson Ḥusain

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15
16 Grain (*ṭa'ām*) is planted in part of Tihāmah.
17 Ants hide themselves in the belly of the earth.
18 The eating of fowl-flesh is disapproved [97].
19 Steam comes out of mouths.
20 The eating of pigeon-flesh is agreeable.
21 The eating of fish is disapproved.
22 *'Īd Ḥannūkah* with the Jews.
23 *Al-Djady* (Capricorn).
24
25 Tree-leaves fall.
26 In Ṣan'ā', the shortest day, 11 hours, 20 minutes.
27
28
29
30 Eating of beef and oranges (*turundj*) forbidden.
31 Blood-letting (*ḥadjāmah*) is forbidden [98].

## 3. Acknowledgements

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at Kerbela, and of course, a particularly significant date to the Zaidī (Shī'ah) rulers of the Yemen. For notes on customs observed in S. Arabia on these dates, see C. v. LANDBERG, Etudes sur les Dialectes de l'Arabie Méridionale, Daṯînah (Leiden 1909-13), p. 1547, and Gloss. Daṯ., op. cit., p. 2296.

[97] About this season in the Wāḥidī Sultanate I was unable to obtain fowls or eggs. The Arabs said the eggs were being set; this may perhaps be the underlying reason for the entry here.

[98] Very little has been written about agriculture in the Aden Protectorates. Apart from pre-1939 material, there might be mentioned, B. J. HARTLEY, Dry Farming Methods in the Aden Protectorate (Middle East Supply Centre, Agricultural Report no. 1). (Cairo 1944), pp. 37-42, ANON, Farmers in Arabia (Sport & Country). (London 1943, July 23), p. 50-1 (ill.), and the annual reports on agriculture of the Aden Government. A number of reports on specific aspects of agriculture have been made to the Colonial Office. Some are listed in DOREEN INGRAMS, Survey of Social and Economic Conditions in the Aden Protectorate (Asmara 1949), which has a section on agriculture (pp. 109-124).

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